ELSEVIER

Surface Science 383 (1997) 379–381

surface science

# Author index

Ahner, J., see Mocuta 383 (1997) 299
Allenspach, R., see Fassbender 383 (1997) L742
Anderson, C.A., see Walker 383 (1997) 248
Angot, T., see Wetzel 383 (1997) 340
Asada, H., M. Nishizaki, Y. Morizawa, Adsorption of Kr and $CH_4$ on *n*-hexane-preplated graphite: displacement of and layering on the condensate 383 (1997) 277

Bär, Th., T. Burns and K. Knorr, Growth kinetics of Ar monolayers physisorbed on graphite (001) 383 (1997) 362
Bartlett, B., see Wu 383 (1997) 57
Bartynski, R.A., see See 383 (1997) L735
Bennich, P., see Puglia 383 (1997) 149
Borgmann, D., see Klingenberg 383 (1997) 13
Braun, B., see Brause 383 (1997) 216
Brause, M., see Ochs 383 (1997) 162
Brause, M., D. Ochs, J. Günster, Th. Mayer, B. Braun, V. Puchin, W. Maus-Friedrichs and V. Kempter, Cs adsorption on oxide films ($Al_2O_3$, MgO, $SiO_2$) 383 (1997) 216
Brown, N.M.D., see Walker 383 (1997) 248
Brühwiler, P.A., see Puglia 383 (1997) 149
Büchel, M., see Marmier 383 (1997) 321
Burns, T., see Bär 383 (1997) 362

Chen, D.M., see Dunphy 383 (1997) L760
Christensen, A., A.V. Ruban and H.L. Skriver, Surface segregation profile for $Ni_{50}Pd_{50}(100)$ 383 (1997) 235
Comsa, G., see Marmier 383 (1997) 321
Cuberes, M.T., R.R. Schlittler, T.A. Jung, K. Schaumburg and J.K. Gimzewski, A scanning tunneling microscopy investigation of 4,4'-dimethylbianthrone molecules adsorbed on Cu(111) 383 (1997) 37

David, R., see Marmier 383 (1997) 321
Davis, J.E., see Karseboom 383 (1997) 173
Dunphy, J.C., D. Klyachko, H. Xu and D.M. Chen, A novel bi-directional step-flow growth mode: $C_{60}$ on Ge(100) and GaAs(110) 383 (1997) L760
Dürig, U., see Fassbender 383 (1997) L742

Ehrlich, G., see Kyuno 383 (1997) L766
Erkoç, Ş., see Katircioğlu 383 (1997) L775
Ernst, H.-J., The pattern formation during ion bombardment of Cu(001) investigated with helium atom beam scattering 383 (1997) L755

Fassbender, J., R. Allenspach and U. Dürig, Intermixing and growth kinetics of the first Co monolayers on Cu(001) 383 (1997) L742
Fellows, R.A., A.R. Lennie, D.J. Vaughan and G. Thornton, A LEED study of the $FeTiO_3(0001)$ surface following annealing in $O_2$ partial pressures 383 (1997) 50
Fissel, A., M. Oehme, K. Pfennighaus and W. Richter, RHEED investigations of MBE-growth kinetics of Si on Si(111) and SiC on SiC(100) 383 (1997) 370
Fujitani, T., I. Nakamura, T. Uchijima and J. Nakamura, The kinetics and mechanism of methanol synthesis by hydrogenation of $CO_2$ over a Zn-deposited Cu(111) surface 383 (1997) 285

Gai, Z., R.G. Zhao, B. Gao, H. Ji and W.S. Yang, Surface reconstructions and faceting of the Ga/Ge(113) system 383 (1997) 1
Gaines, D., see Rudkevich 383 (1997) 69
Gao, B., see Gai 383 (1997) 1
Gewinner, G., see Wetzel 383 (1997) 340
Gimzewski, J.K., see Cuberes 383 (1997) 37
Girardet, C., see Marmier 383 (1997) 321
Goerge, J., see Marmier 383 (1997) 321
Goldmann, A., see Stietz 383 (1997) 123
Gorostiza, P., see Sangwal 383 (1997) 78
Grellner, F., see Klingenberg 383 (1997) 13
Günster, J., see Brause 383 (1997) 216

Hansali, G., see Zasada 383 (1997) 241
Hasselström, J., see Puglia 383 (1997) 149
Heiland, W., see Speller 383 (1997) 131
Hoang, P.N.M., see Marmier 383 (1997) 321
Hulbert, S.L., see See 383 (1997) L735
Hult, E. and A. Kiejna, Trends in atom/molecule–surface van der Waals interactions 383 (1997) 88

Ichikawa, M., see Watanabe 383 (1997) 95

Ji, H., see Gai 383 (1997) 1
Joyce, A.M., see Walker 383 (1997) 248
Jung, T.A., see Cuberes 383 (1997) 37

Kao, C.-C., see See 383 (1997) L735
Karseboom, S.G., J.E. Davis and C.B. Mullins, Oxidative cleavage of 2-methylpropene on Ir(111): double bond scission during the formation of acetone 383 (1997) 173
Katircioğlu, Ş. and Ş. Erkoç, Decomposition of $C_{60}$ molecules on Si(111) surface 383 (1997) L775
Kempter, V., see Ochs 383 (1997) 162
Kempter, V., see Brause 383 (1997) 216
Kiejna, A., see Hult 383 (1997) 88
Klingenberg, B., F. Grellner, D. Borgmann and G. Wedler, Low-energy electron diffraction and X-ray photoelectron spectroscopy on the oxidation of cobalt (11$\bar{2}$0) 383 (1997) 13
Klyachko, D., see Dunphy 383 (1997) L760
Knorr, K., see Bär 383 (1997) 362
Krans, J.M. and J.M. van Ruitenbeck, Anomalous vacuum tunneling in antimony break junctions 383 (1997) L728
Krischok, S., see Ochs 383 (1997) 162
Kuech, T.F., see Rudkevich 383 (1997) 69
Kürpick, P., see Kürpick 383 (1997) L713
Kürpick, U., P. Kürpick and T.S. Rahman, Atomic processes in vacancy island motion on Ag(111) 383 (1997) L713
Kürpick, U. and T.S. Rahman, Vibrational free energy contribution to self-diffusion on Ni(100), Cu(100) and Ag(100) 383 (1997) 137
Kyuno, K. and G. Ehrlich, Step-edge barriers: truths and kinetic consequences 383 (1997) L766

Labrune, J.C., see Roge 383 (1997) 350
Le Bossé, J.C., see Zasada 383 (1997) 241
Legrand, B., see Mottet 383 (1997) L719
Leisenberger, F.P., H. Öfner, M.G. Ramsey and F.P. Netzer, The growth of indium on the H-terminated Si(111)1 × 1 surface 383 (1997) 25
Lennie, A.R., see Fellows 383 (1997) 50
Lopez, J., see Zasada 383 (1997) 241

Marmier, A., C. Ramseyer, P.N.M. Hoang, C. Girardet, J. Goerge, P. Zeppenfeld, M. Büchel, R. David, G. Comsa, Adsorption and structure of $N_2$ on copper(110) 383 (1997) 321
Mårtensson, N., see Puglia 383 (1997) 149
Maus-Friedrichs, W., see Ochs 383 (1997) 162
Maus-Friedrichs, W., see Brause 383 (1997) 216
Maxwell, A.J., see Puglia 383 (1997) 149
Mayer, Th., see Brause 383 (1997) 216
McCaughan, L., see Rudkevich 383 (1997) 69
McKinley, A., see Walker 383 (1997) 248
Merrill, P.B., see Perry 383 (1997) 268
Mocuta, D., J. Ahner and J.T. Yates, Jr., Adsorption and electron-stimulated dissociation of ammonia on Cu(110): an ESDIAD study 383 (1997) 299
Morizawa, Y., see Asada 383 (1997) 277
Mottet, C., G. Tréglia and B. Legrand, New magic numbers in metallic clusters: an unexpected metal dependence 383 (1997) L719
Mullins, C.B., see Karseboom 383 (1997) 173

Nakamura, I., see Fujitani 383 (1997) 285
Nakamura, J., see Fujitani 383 (1997) 285
Nangia, A., see See 383 (1997) L735
Netzer, F.P., see Leisenberger 383 (1997) 25
Nieto, F. and V. Pereyra, Adsorption-induced surface reconstruction: predictions of a simple model 383 (1997) 308
Nilsson, A., see Puglia 383 (1997) 149
Nishizaki, M., see Asada 383 (1997) 277

Ochs, D., M. Brause, P. Stracke, S. Krischok, F. Wiegershaus, W. Maus-Friedrichs, V. Kempter, V.E. Puchin and A.L. Shluger, The surface electronic structure of stoichiometric and defective LiF surfaces studied with MIES and UPS in combination with ab-initio calculations 383 (1997) 162
Ochs, D., see Brause 383 (1997) 216
Oehme, M., see Fissel 383 (1997) 370
Öfner, H., see Leisenberger 383 (1997) 25

Palmino, F., see Roge 383 (1997) 350
Parascandola, S., see Speller 383 (1997) 131
Pereyra, V., see Nieto 383 (1997) 308
Perry, S.S. and P.B. Merrill, Preparation and characterization of MgO(100) surfaces 383 (1997) 268
Pfennighaus, K., see Fissel 383 (1997) 370
Pirri, C., see Wetzel 383 (1997) 340
Pirri, C., see Roge 383 (1997) 350
Puchin, V., see Brause 383 (1997) 216
Puchin, V.E., see Ochs 383 (1997) 162
Puglia, C., P. Bennich, J. Hasselström, P.A. Brühwiler, A. Nilsson, A.J. Maxwell, N. Mårtensson and P. Rudolf, A photoemission and XAS study of oxygen coadsorbed with a (2 × 2) layer of K on graphite 383 (1997) 149

Rahman, T.S., see Kürpick 383 (1997) L713
Rahman, T.S., see Kürpick 383 (1997) 137
Ramsey, M.G., see Leisenberger 383 (1997) 25
Ramseyer, C., see Marmier 383 (1997) 321
Richter, W., see Fissel 383 (1997) 370
Roge, T.P., F. Palmino, C. Savall, J.C. Labrune and C. Pirri, Er-induced $2\sqrt{3} \times 2\sqrt{3}$ R30° reconstruction on Si(111): influence on the very low Er coverage silicide growth 383 (1997) 350
Ruban, A.V., see Christensen 383 (1997) 235
Rudkevich, E., D. Saulys, D. Gaines, T.F. Kuech and L. McCaughan, Adsorption and decomposition studies of t-butyl silane on Si(100)-(2 × 1) surfaces using FTIR-ATR spectroscopy 383 (1997) 69
Rudolf, P., see Puglia 383 (1997) 149

Sangwal, K., F. Sanz, J. Servat and P. Gorostiza, Nature of multilayer steps on the {100} cleavage planes of MgO single crystals 383 (1997) 78
Sanz, F., see Sangwal 383 (1997) 78
Saulys, D., see Rudkevich 383 (1997) 69
Savall, C., see Roge 383 (1997) 350
Schaefer, J.A., see Stietz 383 (1997) 123
Schaumburg, K., see Cuberes 383 (1997) 37
Schlittler, R.R., see Cuberes 383 (1997) 37
Schober, G. and O. Weis, Highly resolved atomic (111) surfaces of synthetic type IIb diamond in air investigated by scanning tunneling microscopy using a lithium niobate scanner 383 (1997) 203
See, A.K., W.-K. Siu, R.A. Bartynski, A. Nangia, A.H. Weiss, S.L. Hulbert, X. Wu and C.-C. Kao, Enhanced sensitivity to oxide surface defects using Auger-photoelectron coincidence spectroscopy 383 (1997) L735
Selloni, A., see Vittadini 383 (1997) L779
Servat, J., see Sangwal 383 (1997) 78
Shluger, A.L., see Ochs 383 (1997) 162
Siu, W.-K., see See 383 (1997) L735
Skriver, H.L., see Christensen 383 (1997) 235
Speller, S., S. Parascandola and W. Heiland, Structural parameters of Pd(110) and Pt(110)-(1 × 2) in the temperature range 300–900 K studied by low-energy ion scattering 383 (1997) 131
Stietz, F., J.A. Schaefer and A. Goldmann, Chemisorption of chlorine on GaAs(100) surfaces studied by high-resolution electron energy-loss spectroscopy 383 (1997) 123
Stietz, F., see Viereck 383 (1997) L749
Stracke, P., see Ochs 383 (1997) 162
Stuke, M., see Viereck 383 (1997) L749

Tamaru, K., Reactivity of chemisorbed oxygen on silver and copper surfaces: Nature of the sites where the reaction takes place on the catalyst surface in hydrogen–oxygen reaction on copper and silver 383 (1997) 261
Tapilin, V.M., On a quantitative theory of non-direct transitions in photoemission spectra of semi-infinite crystals 383 (1997) 226
Thornton, G., see Fellows 383 (1997) 50
Träger, F., see Viereck 383 (1997) L749
Tréglia, G., see Mottet 383 (1997) L719
Tysoe, W.T., see Wu 383 (1997) 57

Uchijima, T., see Fujitani 383 (1997) 285

Van Ruitenbeek, J.M., see Krans 383 (1997) L728
Vaughan, D.J., see Fellows 383 (1997) 50
Viereck, J., F. Stietz, M. Stuke, T. Wenzel and F. Träger, The role of surface defects in laser-induced thermal desorption from metal surfaces 383 (1997) L749
Vittadini, A. and A. Selloni, $H_2$ adsorption/desorption at Si(111)-(7 × 7): a density functional study 383 (1997) L779

Walker, C.G.H., C.A. Anderson, A. McKinley, N.M.D. Brown and A.M. Joyce, A combined AES, resonant photoemission and EELS study of in-situ grown titanium nitride 383 (1997) 248
Watanabe, H. and M. Ichikawa, Structural transformation of hydrogen-adsorbed Si(111)-$\sqrt{3} \times \sqrt{3}$-Ag surfaces induced by electron-stimulated desorption 383 (1997) 95
Wedler, G., see Klingenberg 383 (1997) 13
Weis, O., see Schober 383 (1997) 203
Weiss, A.H., see See 383 (1997) L735
Wenzel, T., see Viereck 383 (1997) L749
Wetzel, P., T. Angot, C. Pirri and G. Gewinner, Origin of the semimetal-to-semiconductor transition observed in two-dimensional Er silicide upon H exposure: evidence of two chemisorption sites 383 (1997) 340
Wiegershaus, F., see Ochs 383 (1997) 162
Wollschläger, J., Simple analysis of spot splitting due to diffraction at surfaces with atomic steps 383 (1997) 103
Wu, G., B. Bartlett and W.T. Tysoe, The surface chemistry of ethylene adsorbed on Mo(100), oxygen-covered Mo(100) and $MoO_2$ 383 (1997) 57
Wu, X., see See 383 (1997) L735

Xu, H., see Dunphy 383 (1997) L760

Yang, W.S., see Gai 383 (1997) 1
Yates, Jr., J.T., see Mocuta 383 (1997) 299

Zasada, I., G. Hansali, J.C. Le Bossé and J. Lopez, Determination of site-occupancy pair correlation functions of CO adsorbed on Pt(111) adapted for DLEED intensity calculations 383 (1997) 241
Zeppenfeld, P., see Marmier 383 (1997) 321
Zhao, R.G., see Gai 383 (1997) 1

ELSEVIER

Surface Science 383 (1997) 382–387

surface science

# Subject index


## THEORETICAL METHODS, MODELS AND TECHNIQUES

### Ab initio quantum chemical methods and calculations

D. Ochs, M. Brause, P. Stracke, S. Krischok, F. Wiegershaus, W. Maus-Friedrichs, V. Kempter, V.E. Puchin and A.L. Shluger, The surface electronic structure of stoichiometric and defective LiF surfaces studied with MIES and UPS in combination with ab-initio calculations 383 (1997) 162

### Atom–solid interactions, scattering, diffraction

E. Hult and A. Kiejna, Trends in atom/molecule–surface van der Waals interactions 383 (1997) 88

### Atomistic dynamics

U. Kürpick, P. Kürpick and T.S. Rahman, Atomic processes in vacancy island motion on Ag(111) 383 (1997) L713

U. Kürpick and T.S. Rahman, Vibrational free energy contribution to self-diffusion on Ni(100), Cu(100) and Ag(100) 383 (1997) 137

### Computer simulations

U. Kürpick, P. Kürpick and T.S. Rahman, Atomic processes in vacancy island motion on Ag(111) 383 (1997) L713

F. Nieto and V. Pereyra, Adsorption-induced surface reconstruction: predictions of a simple model 383 (1997) 308

### Construction and use of effective interatomic interactions

A. Christensen, A.V. Ruban and H.L. Skriver, Surface segregation profile for $Ni_{50}Pd_{50}(100)$ 383 (1997) 235

### Density functional calculations

A. Vittadini and A. Selloni, $H_2$ adsorption/desorption at Si(111)-(7 × 7): a density functional study 383 (1997) L779

E. Hult and A. Kiejna, Trends in atom/molecule–surface van der Waals interactions 383 (1997) 88

A. Christensen, A.V. Ruban and H.L. Skriver, Surface segregation profile for $Ni_{50}Pd_{50}(100)$ 383 (1997) 235

### Electron density, excitation spectra calculations

V.M. Tapilin, On a quantitative theory of non-direct transitions in photoemission spectra of semi-finite crystals 383 (1997) 226

### Equilibrium thermodynamics and statistical mechanics

A. Christensen, A.V. Ruban and H.L. Skriver, Surface segregation profile for $Ni_{50}Pd_{50}(100)$ 383 (1997) 235

### Green's function methods

A. Christensen, A.V. Ruban and H.L. Skriver, Surface segregation profile for $Ni_{50}Pd_{50}(100)$ 383 (1997) 235

### Jellium models

E. Hult and A. Kiejna, Trends in atom/molecule–surface van der Waals interactions 383 (1997) 88

### Models of surface chemical reactions

A. Vittadini and A. Selloni, $H_2$ adsorption/desorption at Si(111)-(7 × 7): a density functional study 383 (1997) L779

G. Wu, B. Bartlett and W.T. Tysoe, The surface chemistry of ethylene adsorbed on Mo(100), oxygen-covered Mo(100) and $MoO_2$ 383 (1997) 57

### Models of surface kinetics

K. Kyuno and G. Ehrlich, Step-edge barriers: truths and kinetic consequences 383 (1997) L766

### Molecular dynamics

U. Kürpick, P. Kürpick and T.S. Rahman, Atomic processes in vacancy island motion on Ag(111) 383 (1997) L713

C. Mottet, G. Tréglia and B. Legrand, New magic numbers in metallic clusters: an unexpected metal dependence 383 (1997) L719

Ş. Katircioğlu and Ş. Erkoç, Decomposition of $C_{60}$ molecules on Si(111) surface 383 (1997) L775

A. Christensen, A.V. Ruban and H.L. Skriver, Surface segregation profile for $Ni_{50}Pd_{50}(100)$ 383 (1997) 235

### Semi-empirical models and model calculations

C. Mottet, G. Tréglia and B. Legrand, New magic numbers in metallic clusters: an unexpected metal dependence 383 (1997) L719

J. Wollschläger, Simple analysis of spot splitting due to diffraction at surfaces with atomic steps 383 (1997) 103

A. Christensen, A.V. Ruban and H.L. Skriver, Surface segregation profile for $Ni_{50}Pd_{50}(100)$ 383 (1997) 235

## EXPERIMENTAL SAMPLE PREPARATION AND CHARACTERIZATION METHODS

### Adsorption isotherms

H. Asada, M. Nishizaki, Y. Morizawa, Adsorption of Kr and $CH_4$ on *n*-hexane-preplated graphite: displacement of and layering on the condensate 383 (1997) 277
A. Marmier, C. Ramseyer, P.N.M. Hoang, C. Girardet, J. Goerge, P. Zeppenfeld, M. Büchel, R. David, G. Comsa, Adsorption and structure of $N_2$ on copper(110) 383 (1997) 321
Th. Bär, T. Burns and K. Knorr, Growth kinetics of Ar monolayers physisorbed on graphite (001) 383 (1997) 362

### Atom–solid scattering and diffraction – elastic

J. Wollschläger, Simple analysis of spot splitting due to diffraction at surfaces with atomic steps 383 (1997) 103
A. Marmier, C. Ramseyer, P.N.M. Hoang, C. Girardet, J. Goerge, P. Zeppenfeld, M. Büchel, R. David, G. Comsa, Adsorption and structure of $N_2$ on copper(110) 383 (1997) 321

### Atomic force microscopy

K. Sangwal, F. Sanz, J. Servat and P. Gorostiza, Nature of multilayer steps on the {100} cleavage planes of MgO single crystals 383 (1997) 78
S.S. Perry and P.B. Merrill, Preparation and characterization of MgO(100) surfaces 383 (1997) 268

### Auger electron spectroscopy

A.K. See, W.-K. Siu, R.A. Bartynski, A. Nangia, A.H. Weiss, S.L. Hulbert, X. Wu and C.-C. Kao, Enhanced sensitivity to oxide surface defects using Auger-photoelectron coincidence spectroscopy 383 (1997) L735
H. Watanabe and M. Ichikawa, Structural transformation of hydrogen-adsorbed Si(111)-$\sqrt{3} \times \sqrt{3}$-Ag surfaces induced by electron-stimulated desorption 383 (1997) 95
C.G.H. Walker, C.A. Anderson, A. McKinley, N.M.D. Brown and A.M. Joyce, A combined AES, resonant photoemission and EELS study of in-situ grown titanium nitride 383 (1997) 248

### Chemical vapor deposition

E. Rudkevich, D. Saulys, D. Gaines, T.F. Kuech and L. McCaughan, Adsorption and decomposition studies of t-butyl silane on Si(100)-(2 × 1) surfaces using FTIR-ATR spectroscopy 383 (1997) 69

### Desorption induced by electronic transitions (DIET)

J. Viereck, F. Stietz, M. Stuke, T. Wenzel and F. Träger, The role of surface defects in laser-induced thermal desorption from metal surfaces 383 (1997) L749
D. Mocuta, J. Ahner and J.T. Yates, Jr., Adsorption and electron-stimulated dissociation of ammonia on Cu(110): an ESDIAD study 383 (1997) 299

#### *Angle resolved DIET (including electron stimulated desorption ion angular distribution (ESDIAD))*

D. Mocuta, J. Ahner and J.T. Yates, Jr., Adsorption and electron-stimulated dissociation of ammonia on Cu(110): an ESDIAD study 383 (1997) 299

#### *Electron stimulated desorption (ESD)*

H. Watanabe and M. Ichikawa, Structural transformation of hydrogen-adsorbed Si(111)-$\sqrt{3} \times \sqrt{3}$-Ag surfaces induced by electron-stimulated desorption 383 (1997) 95
D. Ochs, M. Brause, P. Stracke, S. Krischok, F. Wiegershaus, W. Maus-Friedrichs, V. Kempter, V.E. Puchin and A.L. Shluger, The surface electronic structure of stoichiometric and defective LiF surfaces studied with MIES and UPS in combination with ab-initio calculations 383 (1997) 162
D. Mocuta, J. Ahner and J.T. Yates, Jr., Adsorption and electron-stimulated dissociation of ammonia on Cu(110): an ESDIAD study 383 (1997) 299

#### *Photon stimulated desorption (PSD)*

J. Viereck, F. Stietz, M. Stuke, T. Wenzel and F. Träger, The role of surface defects in laser-induced thermal desorption from metal surfaces 383 (1997) L749

### Electrical transport measurements

J.M. Krans and J.M. van Ruitenbeek, Anomalous vacuum tunneling in antimony break junctions 383 (1997) L728

### Electron energy loss spectroscopy

F. Stietz, J.A. Schaefer and A. Goldmann, Chemisorption of chlorine on GaAs(100) surfaces studied by high-resolution electron energy-loss spectroscopy 383 (1997) 123
S.G. Karseboom, J.E. Davis and C.B. Mullins, Oxidative cleavage of 2-methylpropene on Ir(111): double bond scission during the formation of acetone 383 (1997) 173
C.G.H. Walker, C.A. Anderson, A. McKinley, N.M.D. Brown and A.M. Joyce, A combined AES, resonant photoemission and EELS study of in-situ grown titanium nitride 383 (1997) 248
P. Wetzel, T. Angot, C. Pirri and G. Gewinner, Origin of the semimetal-to-semiconductor transition observed in two-dimensional Er silicide upon H exposure: evidence of two chemisorption sites 383 (1997) 340

### Electron microscopy

#### *Reflection electron microscopy (REM)*

H. Watanabe and M. Ichikawa, Structural transformation of hydrogen-adsorbed Si(111)-$\sqrt{3} \times \sqrt{3}$-Ag surfaces induced by electron-stimulated desorption 383 (1997) 95

#### *Scanning electron microscopy (SEM)*

H. Watanabe and M. Ichikawa, Structural transformation of hydrogen-adsorbed Si(111)-$\sqrt{3} \times \sqrt{3}$-Ag surfaces induced by electron-stimulated desorption 383 (1997) 95

**Electron–solid diffraction**

J. Wollschläger, Simple analysis of spot splitting due to diffraction at surfaces with atomic steps 383 (1997) 103

***Low energy electron diffraction (LEED)***

Z. Gai, R.G. Zhao, B. Gao, H. Ji and W.S. Yang, Surface reconstructions and faceting of the Ga/Ge(113) system 383 (1997) 1

B. Klingenberg, F. Grellner, D. Borgmann and G. Wedler, Low-energy electron diffraction and X-ray photoelectron spectroscopy on the oxidation of cobalt (11$\bar{2}$0) 383 (1997) 13

R.A. Fellows, A.R. Lennie, D.J. Vaughan and G. Thornton, A LEED study of the $FeTiO_3$(0001) surface following annealing in $O_2$ partial pressures 383 (1997) 50

I. Zasada, G. Hansali, J.C. Le Bossé and J. Lopez, Determination of site-occupancy pair correlation functions of CO adsorbed on Pt(111) adapted for DLEED intensity calculations 383 (1997) 241

S.S. Perry and P.B. Merrill, Preparation and characterization of MgO(100) surfaces 383 (1997) 268

***Reflection high-energy electron diffraction (RHEED)***

H. Watanabe and M. Ichikawa, Structural transformation of hydrogen-adsorbed Si(111)-$\sqrt{3}\times\sqrt{3}$-Ag surfaces induced by electron-stimulated desorption 383 (1997) 95

A. Fissel, M. Oehme, K. Pfennighaus and W. Richter, RHEED investigations of MBE-growth kinetics of Si on Si(111) and SiC on SiC(100) 383 (1997) 370

**Ellipsometry**

Th. Bär, T. Burns and K. Knorr, Growth kinetics of Ar monolayers physisorbed on graphite (001) 383 (1997) 362

**Ion scattering spectroscopy**

***Low energy ion scattering (LEIS)***

S. Speller, S. Parascandola and W. Heiland, Structural parameters of Pd(110) and Pt(110)-(1 × 2) in the temperature range 300–900 K studied by low-energy ion scattering 383 (1997) 131

**Molecular beam epitaxy**

A. Fissel, M. Oehme, K. Pfennighaus and W. Richter, RHEED investigations of MBE-growth kinetics of Si on Si(111) and SiC on SiC(100) 383 (1997) 370

**Photoelectron spectroscopy**

A.K. See, W.-K. Siu, R.A. Bartynski, A. Nangia, A.H. Weiss, S.L. Hulbert, X. Wu and C.-C. Kao, Enhanced sensitivity to oxide surface defects using Auger-photoelectron coincidence spectroscopy 383 (1997) L735

F.P. Leisenberger, H. Öfner, M.G. Ramsey and F.P. Netzer, The growth of indium on the H-terminated Si(111)1 × 1 surface 383 (1997) 25

G. Wu, B. Bartlett and W.T. Tysoe, The surface chemistry of ethylene adsorbed on Mo(100), oxygen-covered Mo(100) and $MoO_2$ 383 (1997) 57

F. Stietz, J.A. Schaefer and A. Goldmann, Chemisorption of chlorine on GaAs(100) surfaces studied by high-resolution electron energy-loss spectroscopy 383 (1997) 123

C. Puglia, P. Bennich, J. Hasselström, P.A. Brühwiler, A. Nilsson, A.J. Maxwell, N. Mårtensson and P. Rudolf, A photoemission and XAS study of oxygen coadsorbed with a (2 × 2) layer of K on graphite 383 (1997) 149

D. Ochs, M. Brause, P. Stracke, S. Krischok, F. Wiegershaus, W. Maus-Friedrichs, V. Kempter, V.E. Puchin and A.L. Shluger, The surface electronic structure of stoichiometric and defective LiF surfaces studied with MIES and UPS in combination with ab-initio calculations 383 (1997) 162

V.M. Tapilin, On a quantitative theory of non-direct transitions in photoemission spectra of semi-finite crystals 383 (1997) 226

T. Fujitani, I. Nakamura, T. Uchijima and J. Nakamura, The kinetics and mechanism of methanol synthesis by hydrogenation of $CO_2$ over a Zn-deposited Cu(111) surface 383 (1997) 285

***Angle resolved photoemission***

P. Wetzel, T. Angot, C. Pirri and G. Gewinner, Origin of the semimetal-to-semiconductor transition observed in two-dimensional Er silicide upon H exposure: evidence of two chemisorption sites 383 (1997) 340

T.P. Roge, F. Palmino, C. Savall, J.C. Labrune and C. Pirri, Er-induced $2\sqrt{3}\times2\sqrt{3}$R30° reconstruction on Si(111): influence on the very low Er coverage silicide growth 383 (1997) 350

***Visible and ultraviolet photoelectron spectroscopy***

G. Wu, B. Bartlett and W.T. Tysoe, The surface chemistry of ethylene adsorbed on Mo(100), oxygen-covered Mo(100) and $MoO_2$ 383 (1997) 57

C. Puglia, P. Bennich, J. Hasselström, P.A. Brühwiler, A. Nilsson, A.J. Maxwell, N. Mårtensson and P. Rudolf, A photoemission and XAS study of oxygen coadsorbed with a (2 × 2) layer of K on graphite 383 (1997) 149

***X-ray photoelectron spectroscopy***

B. Klingenberg, F. Grellner, D. Borgmann and G. Wedler, Low-energy electron diffraction and X-ray photoelectron spectroscopy on the oxidation of cobalt (11$\bar{2}$0) 383 (1997) 13

F. Stietz, J.A. Schaefer and A. Goldmann, Chemisorption of chlorine on GaAs(100) surfaces studied by high-resolution electron energy-loss spectroscopy 383 (1997) 123

C. Puglia, P. Bennich, J. Hasselström, P.A. Brühwiler, A. Nilsson, A.J. Maxwell, N. Mårtensson and P. Rudolf, A photoemission and XAS study of oxygen coadsorbed with a (2 × 2) layer of K on graphite 383 (1997) 149

***Synchrotron radiation photoelectron spectroscopy***

F.P. Leisenberger, H. Öfner, M.G. Ramsey and F.P. Netzer, The growth of indium on the H-terminated Si(111)1 × 1 surface 383 (1997) 25

C.G.H. Walker, C.A. Anderson, A. McKinley, N.M.D. Brown and A.M. Joyce, A combined AES, resonant photoemission and EELS study of in-situ grown titanium nitride 383 (1997) 248

**Photon absorption spectroscopy**

M. Brause, D. Ochs, J. Günster, Th. Mayer, B. Braun, V. Puchin, W. Maus-Friedrichs and V. Kempter, Cs adsorption on oxide films ($Al_2O_3$, MgO, $SiO_2$) 383 (1997) 216

***Visible/ultraviolet absorption spectroscopy***

M. Brause, D. Ochs, J. Günster, Th. Mayer, B. Braun, V. Puchin, W. Maus-Friedrichs and V. Kempter, Cs adsorption on oxide films ($Al_2O_3$, MgO, $SiO_2$) 383 (1997) 216

***X-ray absorption spectroscopy***

C. Puglia, P. Bennich, J. Hasselström, P.A. Brühwiler, A. Nilsson, A.J. Maxwell, N. Mårtensson and P. Rudolf, A photoemission and XAS study of oxygen coadsorbed with a (2 × 2) layer of K on graphite 383 (1997) 149

**Scanning tunneling microscopy**

J. Fassbender, R. Allenspach and U. Dürig, Intermixing and growth kinetics of the first Co monolayers on Cu(001) 383 (1997) L742

J.C. Dunphy, D. Klyachko, H. Xu and D.M. Chen, A novel bi-directional step-flow growth mode: $C_{60}$ on Ge(100) and GaAs(110) 383 (1997) L760

Z. Gai, R.G. Zhao, B. Gao, H. Ji and W.S. Yang, Surface reconstructions and faceting of the Ga/Ge(113) system 383 (1997) 1

F.P. Leisenberger, H. Öfner, M.G. Ramsey and F.P. Netzer, The growth of indium on the H-terminated Si(111)1 × 1 surface 383 (1997) 25

M.T. Cuberes, R.R. Schlittler, T.A. Jung, K. Schaumburg and J.K. Gimzewski, A scanning tunneling microscopy investigation of 4,4'-dimethylbianthrone molecules adsorbed on Cu(111) 383 (1997) 37

G. Schober and O. Weis, Highly resoved atomic (111) surfaces of synthetic type IIb diamond in air investigated by scanning tunneling microscopy using a lithium niobate scanner 383 (1997) 203

T.P. Roge, F. Palmino, C. Savall, J.C. Labrune and C. Pirri, Er-induced $2\sqrt{3} \times 2\sqrt{3}R30^\circ$ reconstruction on Si(111): influence on the very low Er coverage silicide growth 383 (1997) 350

**Scanning tunneling spectroscopies**

J.M. Krans and J.M. van Ruitenbeek, Anomalous vacuum tunneling in antimony break junctions 383 (1997) L728

**Sputter deposition**

C.G.H. Walker, C.A. Anderson, A. McKinley, N.M.D. Brown and A.M. Joyce, A combined AES, resonant photoemission and EELS study of in-situ grown titanium nitride 383 (1997) 248

**Thermal desorption spectroscopy**

G. Wu, B. Bartlett and W.T. Tysoe, The surface chemistry of ethylene adsorbed on Mo(100), oxygen-covered Mo(100) and $MoO_2$ 383 (1997) 57

S.G. Karseboom, J.E. Davis and C.B. Mullins, Oxidative cleavage of 2-methylpropene on Ir(111): double bond scission during the formation of acetone 383 (1997) 173

**Work function measurements**

J.M. Krans and J.M. van Ruitenbeek, Anomalous vacuum tunneling in antimony break junctions 383 (1997) L728

B. Klingenberg, F. Grellner, D. Borgmann and G. Wedler, Low-energy electron diffraction and X-ray photoelectron spectroscopy on the oxidation of cobalt (11$\bar{2}$0) 383 (1997) 13

**X-ray scattering, diffraction, and reflection**

J. Wollschläger, Simple analysis of spot splitting due to diffraction at surfaces with atomic steps 383 (1997) 103

**PHENOMENA**

**Adsorption kinetics**

J. Fassbender, R. Allenspach and U. Dürig, Intermixing and growth kinetics of the first Co monolayers on Cu(001) 383 (1997) L742

Th. Bär, T. Burns and K. Knorr, Growth kinetics of Ar monolayers physisorbed on graphite (001) 383 (1997) 362

**Atom–solid interactions**

A. Marmier, C. Ramseyer, P.N.M. Hoang, C. Girardet, J. Goerge, P. Zeppenfeld, M. Büchel, R. David, G. Comsa, Adsorption and structure of $N_2$ on copper(110) 383 (1997) 321

**Auger ejection**

A.K. See, W.-K. Siu, R.A. Bartynski, A. Nangia, A.H. Weiss, S.L. Hulbert, X. Wu and C.-C. Kao, Enhanced sensitivity to oxide surface defects using Auger-photoelectron coincidence spectroscopy 383 (1997) L735

**Catalysis**

G. Wu, B. Bartlett and W.T. Tysoe, The surface chemistry of ethylene adsorbed on Mo(100), oxygen-covered Mo(100) and $MoO_2$ 383 (1997) 57

S.G. Karseboom, J.E. Davis and C.B. Mullins, Oxidative cleavage of 2-methylpropene on Ir(111): double bond scission during the formation of acetone 383 (1997) 173

K. Tamaru, Reactivity of chemisorbed oxygen on silver and copper surfaces: Nature of the sites where the reaction takes place on the catalyst surface in hydrogen–oxygen reaction on copper and silver 383 (1997) 261

**Chemisorption**

A. Vittadini and A. Selloni, $H_2$ adsorption/desorption at Si(111)-(7 × 7): a density functional study 383 (1997) L779

M.T. Cuberes, R.R. Schlittler, T.A. Jung, K. Schaumburg and J.K. Gimzewski, A scanning tunneling microscopy investiga-

tion of 4,4'-dimethylbianthrone molecules adsorbed on Cu(111) 383 (1997) 37
F. Stietz, J.A. Schaefer and A. Goldmann, Chemisorption of chlorine on GaAs(100) surfaces studied by high-resolution electron energy-loss spectroscopy 383 (1997) 123
S.G. Karseboom, J.E. Davis and C.B. Mullins, Oxidative cleavage of 2-methylpropene on Ir(111): double bond scission during the formation of acetone 383 (1997) 173
M. Brause, D. Ochs, J. Günster, Th. Mayer, B. Braun, V. Puchin, W. Maus-Friedrichs and V. Kempter, Cs adsorption on oxide films ($Al_2O_3$, MgO, $SiO_2$) 383 (1997) 216
I. Zasada, G. Hansali, J.C. Le Bossé and J. Lopez, Determination of site-occupancy pair correlation functions of CO adsorbed on Pt(111) adapted for DLEED intensity calculations 383 (1997) 241
K. Tamaru, Reactivity of chemisorbed oxygen on silver and copper surfaces: Nature of the sites where the reaction takes place on the catalyst surface in hydrogen–oxygen reaction on copper and silver 383 (1997) 261
D. Mocuta, J. Ahner and J.T. Yates, Jr., Adsorption and electron-stimulated dissociation of ammonia on Cu(110): an ESDIAD study 383 (1997) 299
P. Wetzel, T. Angot, C. Pirri and G. Gewinner, Origin of the semimetal-to-semiconductor transition observed in two-dimensional Er silicide upon H exposure: evidence of two chemisorption sites 383 (1997) 340

**Diffusion and migration**

U. Kürpick, P. Kürpick and T.S. Rahman, Atomic processes in vacancy island motion on Ag(111) 383 (1997) L713
U. Kürpick and T.S. Rahman, Vibrational free energy contribution to self-diffusion on Ni(100), Cu(100) and Ag(100) 383 (1997) 137

**Electron–solid interactions**

J. Wollschläger, Simple analysis of spot splitting due to diffraction at surfaces with atomic steps 383 (1997) 103

**Epitaxy**

J. Fassbender, R. Allenspach and U. Dürig, Intermixing and growth kinetics of the first Co monolayers on Cu(001) 383 (1997) L742
J.C. Dunphy, D. Klyachko, H. Xu and D.M. Chen, A novel bi-directional step-flow growth mode: $C_{60}$ on Ge(100) and GaAs(110) 383 (1997) L760
K. Kyuno and G. Ehrlich, Step-edge barriers: truths and kinetic consequences 383 (1997) L766
E. Rudkevich, D. Saulys, D. Gaines, T.F. Kuech and L. McCaughan, Adsorption and decomposition studies of t-butyl silane on Si(100)-(2 × 1) surfaces using FTIR-ATR spectroscopy 383 (1997) 69
P. Wetzel, T. Angot, C. Pirri and G. Gewinner, Origin of the semimetal-to-semiconductor transition observed in two-dimensional Er silicide upon H exposure: evidence of two chemisorption sites 383 (1997) 340
T.P. Roge, F. Palmino, C. Savall, J.C. Labrune and C. Pirri, Er-induced $2\sqrt{3} \times 2\sqrt{3}R30^\circ$ reconstruction on Si(111): influence on the very low Er coverage silicide growth 383 (1997) 350

**Etching**

F. Stietz, J.A. Schaefer and A. Goldmann, Chemisorption of chlorine on GaAs(100) surfaces studied by high-resolution electron energy-loss spectroscopy 383 (1997) 123
S.S. Perry and P.B. Merrill, Preparation and characterization of MgO(100) surfaces 383 (1997) 268

**Faceting**

Z. Gai, R.G. Zhao, B. Gao, H. Ji and W.S. Yang, Surface reconstructions and faceting of the Ga/Ge(113) system 383 (1997) 1
K. Sangwal, F. Sanz, J. Servat and P. Gorostiza, Nature of multilayer steps on the {100} cleavage planes of MgO single crystals 383 (1997) 78

**Growth**

J.C. Dunphy, D. Klyachko, H. Xu and D.M. Chen, A novel bi-directional step-flow growth mode: $C_{60}$ on Ge(100) and GaAs(110) 383 (1997) L760
K. Kyuno and G. Ehrlich, Step-edge barriers: truths and kinetic consequences 383 (1997) L766
F.P. Leisenberger, H. Öfner, M.G. Ramsey and F.P. Netzer, The growth of indium on the H-terminated Si(111)1 × 1 surface 383 (1997) 25

**Ion bombardment**

H.-J. Ernst, The pattern formation during ion bombardment of Cu(001) investigated with helium atom beam scattering 383 (1997) L755

**Nucleation**

K. Kyuno and G. Ehrlich, Step-edge barriers: truths and kinetic consequences 383 (1997) L766
A. Fissel, M. Oehme, K. Pfennighaus and W. Richter, RHEED investigations of MBE-growth kinetics of Si on Si(111) and SiC on SiC(100) 383 (1997) 370

**Oxidation**

B. Klingenberg, F. Grellner, D. Borgmann and G. Wedler, Low-energy electron diffraction and X-ray photoelectron spectroscopy on the oxidation of cobalt (1120) 383 (1997) 13
S.G. Karseboom, J.E. Davis and C.B. Mullins, Oxidative cleavage of 2-methylpropene on Ir(111): double bond scission during the formation of acetone 383 (1997) 173
K. Tamaru, Reactivity of chemisorbed oxygen on silver and copper surfaces: Nature of the sites where the reaction takes place on the catalyst surface in hydrogen–oxygen reaction on copper and silver 383 (1997) 261

**Photoelectron emission**

A.K. See, W.-K. Siu, R.A. Bartynski, A. Nangia, A.H. Weiss, S.L. Hulbert, X. Wu and C.-C. Kao, Enhanced sensitivity to oxide surface defects using Auger-photoelectron coincidence spectroscopy 383 (1997) L735

**Physical adsorption**

E. Hult and A. Kiejna, Trends in atom/molecule–surface van der Waals interactions 383 (1997) 88

M. Brause, D. Ochs, J. Günster, Th. Mayer, B. Braun, V. Puchin, W. Maus-Friedrichs and V. Kempter, Cs adsorption on oxide films ($Al_2O_3$, MgO, $SiO_2$) 383 (1997) 216

H. Asada, M. Nishizaki, Y. Morizawa, Adsorption of Kr and $CH_4$ on *n*-hexane-preplated graphite: displacement of and layering on the condensate 383 (1997) 277

A. Marmier, C. Ramseyer, P.N.M. Hoang, C. Girardet, J. Goerge, P. Zeppenfeld, M. Büchel, R. David, G. Comsa, Adsorption and structure of $N_2$ on copper(110) 383 (1997) 321

**Surface chemical reaction**

K. Tamaru, Reactivity of chemisorbed oxygen on silver and copper surfaces: Nature of the sites where the reaction takes place on the catalyst surface in hydrogen–oxygen reaction on copper and silver 383 (1997) 261

**Surface diffusion**

U. Kürpick, P. Kürpick and T.S. Rahman, Atomic processes in vacancy island motion on Ag(111) 383 (1997) L713

K. Kyuno and G. Ehrlich, Step-edge barriers: truths and kinetic consequences 383 (1997) L766

A. Fissel, M. Oehme, K. Pfennighaus and W. Richter, RHEED investigations of MBE-growth kinetics of Si on Si(111) and SiC on SiC(100) 383 (1997) 370

**Surface relaxation and reconstruction**

Z. Gai, R.G. Zhao, B. Gao, H. Ji and W.S. Yang, Surface reconstructions and faceting of the Ga/Ge(113) system 383 (1997) 1

B. Klingenberg, F. Grellner, D. Borgmann and G. Wedler, Low-energy electron diffraction and X-ray photoelectron spectroscopy on the oxidation of cobalt (11$\bar{2}$0) 383 (1997) 13

R.A. Fellows, A.R. Lennie, D.J. Vaughan and G. Thornton, A LEED study of the $FeTiO_3$(0001) surface following annealing in $O_2$ partial pressures 383 (1997) 50

F. Nieto and V. Pereyra, Adsorption-induced surface reconstruction: predictions of a simple model 383 (1997) 308

T.P. Roge, F. Palmino, C. Savall, J.C. Labrune and C. Pirri, Er-induced $2\sqrt{3} \times 2\sqrt{3}R30°$ reconstruction on Si(111): influence on the very low Er coverage silicide growth 383 (1997) 350

**Surface structure, morphology, roughness, and topography**

J. Fassbender, R. Allenspach and U. Dürig, Intermixing and growth kinetics of the first Co monolayers on Cu(001) 383 (1997) L742

J. Viereck, F. Stietz, M. Stuke, T. Wenzel and F. Träger, The role of surface defects in laser-induced thermal desorption from metal surfaces 383 (1997) L749

H.-J. Ernst, The pattern formation during ion bombardment of Cu(001) investigated with helium atom beam scattering 383 (1997) L755

J.C. Dunphy, D. Klyachko, H. Xu and D.M. Chen, A novel bi-directional step-flow growth mode: $C_{60}$ on Ge(100) and GaAs(110) 383 (1997) L760

R.A. Fellows, A.R. Lennie, D.J. Vaughan and G. Thornton, A LEED study of the $FeTiO_3$(0001) surface following annealing in $O_2$ partial pressures 383 (1997) 50

K. Sangwal, F. Sanz, J. Servat and P. Gorostiza, Nature of multilayer steps on the {100} cleavage planes of MgO single crystals 383 (1997) 78

H. Watanabe and M. Ichikawa, Structural transformation of hydrogen-adsorbed Si(111)-$\sqrt{3} \times \sqrt{3}$-Ag surfaces induced by electron-stimulated desorption 383 (1997) 95

J. Wollschläger, Simple analysis of spot splitting due to diffraction at surfaces with atomic steps 383 (1997) 103

S. Speller, S. Parascandola and W. Heiland, Structural parameters of Pd(110) and Pt(110)-(1 × 2) in the temperature range 300–900 K studied by low-energy ion scattering 383 (1997) 131

S.S. Perry and P.B. Merrill, Preparation and characterization of MgO(100) surfaces 383 (1997) 268

**Surface thermodynamics (including phase transitions)**

U. Kürpick and T.S. Rahman, Vibrational free energy contribution to self-diffusion on Ni(100), Cu(100) and Ag(100) 383 (1997) 137

H. Asada, M. Nishizaki, Y. Morizawa, Adsorption of Kr and $CH_4$ on *n*-hexane-preplated graphite: displacement of and layering on the condensate 383 (1997) 277

F. Nieto and V. Pereyra, Adsorption-induced surface reconstruction: predictions of a simple model 383 (1997) 308

**Surface waves**

***Plasmons***

C.G.H. Walker, C.A. Anderson, A. McKinley, N.M.D. Brown and A.M. Joyce, A combined AES, resonant photoemission and EELS study of in-situ grown titanium nitride 383 (1997) 248

**Thermal desorption**

E. Rudkevich, D. Saulys, D. Gaines, T.F. Kuech and L. McCaughan, Adsorption and decomposition studies of t-butyl silane on Si(100)-(2 × 1) surfaces using FTIR-ATR spectroscopy 383 (1997) 69

J. Viereck, F. Stietz, M. Stuke, T. Wenzel and F. Träger, The role of surface defects in laser-induced thermal desorption from metal surfaces 383 (1997) L749

A. Vittadini and A. Selloni, $H_2$ adsorption/desorption at Si(111)-(7 × 7): a density functional study 383 (1997) L779

**Vibrations of adsorbed molecules**

E. Rudkevich, D. Saulys, D. Gaines, T.F. Kuech and L. McCaughan, Adsorption and decomposition studies of t-butyl silane on Si(100)-(2 × 1) surfaces using FTIR-ATR spectroscopy 383 (1997) 69